Abstract

Resource-constrained project scheduling problem is a project scheduling problem where the main goal is to produce a minimum duration of project works with limited resources. harmony search can be used to solve Resource-constrained project scheduling problem because harmony search is suitable for both combinatorial or continuous optimization problems. The use of a differential mutation on the pitch adjustment is used to give variations value that can be used to search a new solution.

From the analysis and testing results, harmony search algorithms can be used to schedule the projects with limited resources and generate project makespan that close to optimum makespan or even reach the optimum makespan.

Keyword : *Resource-constrained project scheduling problem, harmony search, differential mutation*